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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded use	)	GN Docket No. 22-352
	)	
	)	

REPLY COMMENTS OF THE DYNAMIC SPECTRUM ALLIANCE

The Dynamic Spectrum Alliance ("DSA")[1] hereby submits these reply comments in response to the Federal Communications Commission's ("FCC" or "the Commission") Notice of Inquiry ("NOI") seeking information on the potential for more efficient and intensive use of the 12.7-13.25 GHz Band ("12.7 GHz Band") and how to broaden its use for terrestrial mobile broadband or other additional services. [2] The DSA reiterates its strong support for the

[1] The Dynamic Spectrum Alliance is a global, cross-industry alliance focused on increasing dynamic access to unused radio frequencies. The membership spans multinational companies, small- and medium-sized enterprises, academic, research, and other organizations from around the world, all working to create innovative solutions that will increase the utilization of available spectrum to the benefit of consumers and businesses alike. A full list of the DSA members is available on the DSA's website at www.dynamicspectrumalliance.org/members/.

[2] *In re Expanding Use of the 12.7-13.25 GHz Band for Mobile Broadband or Other Expanded Use*, Notice of Inquiry and Order, GN Docket No. 22-352, FCC 22-80 (Oct. 27, 2022).

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Commission's efforts to expand use of the 12.7 GHz Band. The DSA encourages the Commission to leverage automated sharing technology currently being used to coordinate spectrum sharing in other bands, including TV White Space, the Citizens Broadband Radio Service ("CBRS"), and 6 GHz. Automated spectrum coordination is proving to be successful at both protecting a variety of incumbent systems and increasing spectrum access options for a wide and diverse range of new users.

The record in this proceeding shows that facilitating access to the 12.7 GHz Band by both incumbents and new entrants will necessitate careful planning and cooperation among stakeholders. The experience the Commission and industry have gained from implementing dynamic shared spectrum solutions in other bands should be instructive. Such solutions can be tailored to meet the specific challenges of the 12.7 GHz Band while ensuring the Commission can keep pace with the increasing demand for direct local access to spectrum and to "maximize competition by a diverse set of operators."[3]

As several commenters, including the Consumer Technology Association, Federated Wireless, Inc., NCTA - The Internet & Television Association ("NCTA"), Nokia, and Open Technology Institute at New America and Public Knowledge ("OTI/PK") all observed, a sharing framework could greatly facilitate the Commission's efforts to make more intensive and diverse use of the 12.7 GHz Band.[4] The DSA agrees with NCTA that "[s]hared-licensed approaches, in

[3] *See* NOI at 31.
[4] *See* Comments of Consumer Technology Association, GN Docket No. 22-352 (filed Dec. 12, 2022); Comments of Federated Wireless, Inc., GN Docket No. 22-352 (filed Dec. 12, 2022); Comments of NCTA – The Internet & Television Association, GN Docket No. 22-352 (filed Dec. 12, 2022); Comments of Nokia, GN Docket No. 22-352

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which the Commission's rules seek to facilitate sharing among different kinds of commercial users, or among commercial and government users, are an important tool in the Commission's arsenal for expanding commercial use to new bands and maintaining a balanced spectrum policy that promotes competition and innovation and enables new entrants."[5] The Consumer Technology Association made similar comments stating, "[s]pectrum-sharing technologies and techniques also should be considered to maximize the use of the 12.7 GHz band for next-generation technologies."[6] In its comments, OTI/PK recognized the importance of a sharing framework to increase the number and diversity of users, stating: "[a] shared-license framework that includes both priority access licenses and opportunistic use can also enrich and diversity the nation's developing 5G wireless ecosystem in a way that specifically meets the needs of smaller wireless ISPs, innovators, community anchor institutions, and the tens of thousands of individual enterprises that will choose to customize their own private IoT, neutral host or access network."

The DSA fully agrees with these statements and notes that, despite arguments to the contrary from large mobile broadband service providers that prefer exclusive licensing that limits competition by restricting access to spectrum,[7] the introduction of new licensing options supported by automated spectrum sharing technology has proven to be the best path to support the rapid deployment of new networks, competitive services, and innovative business models.

(filed Dec. 12, 2022); Comments of Open Technology Institute at New America and Public Knowledge, GN Docket No. 22-352 (filed Dec. 12, 2022).

[5] *See* Comments of NCTA at 2-3.

[6] *See* Comments of Consumer Technology Association at 2.

[7] *See* Comments of CTIA, GN Docket No. 22-352 (filed Dec. 12, 2022); AT&T GN Docket No. 22-352 (filed Dec. 12, 2022); T-Mobile GN Docket No. 22-352 (filed Dec. 12, 2022); Verizon GN Docket No. 22-352 (filed Dec. 12, 2022).

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Widespread scale deployments by a record number of diverse users,[8] including the large wireless service providers, under the CBRS licensing framework clearly demonstrates the effectiveness of the shared spectrum model pioneered by the Commission. Spectrum sharing likewise should be relied upon for the 12.7 GHz Band.

Furthermore, in their comments, Intelsat and SES note that propagation in the 12.7 GHz Band, "shares more technical characteristics with millimeter wave ("mmW") frequencies, which have shown limited utility for terrestrial mobile broadband outside of densely populated areas and venues than true mid-band frequencies centering around 3 GHz."[9] If this is indeed the case, the 12.7 GHz Band is far from ideal for high-power, wide-area mobile networks and is instead more suitable for lower-power indoor and outdoor local area networks. As shown in CBRS context, automated dynamic spectrum sharing techniques have been applied successfully to enable local licensing regimes in shared spectrum bands.[10] The Commission should examine whether these or similar techniques could be adapted for use in the 12.7 GHz Band to maximize its use for new broadband services.

[8] In under three years, over 300,000 CBSDs have been deployed to date by over 900 General Authorized Access ("GAA") and 228 Priority Access License ("PAL") users.
[9] *See* Comments of Intelsat License LLC and SES Americom, Inc., GN Docket No. 22-352 (filed Dec. 12, 2022) at 4.
[10] *See, e.g.*, "OnGo Alliance Marks Important Milestones for CBRS Networks, Illustrating Substantial Momentum for Private, Fixed and Neutral Networks," OnGo Alliance Press Release (Sept. 28, 2022), available at https://ongoalliance.org/news/ongo-alliance-marks-important-milestones-for-cbrs-networks-illustrating-substantial-momentum-for-private-fixed-and-neutral-networks/; Comments of Open Technology Institute at New America and Public Knowledge at 9-11.

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The DSA also acknowledges the concerns expressed by incumbents that are reluctant to be relocated within or out of the 12.7 GHz Band.[11] Relocating and clearing systems is costly, disruptive, and time-consuming. The successful track record in the CBRS band of sharing between fixed and mobile broadband services and a variety of incumbent systems, including federal radars, fixed satellite services, and fixed point to point and multipoint networks, makes clear that automated dynamic shared spectrum solutions can be designed, implemented, and operated to enable incumbent users to continue to operate and evolve over time.[12]

The DSA agrees with comments that new protection methodologies may be needed to, "accommodate for the varying usage patterns of incumbent licenses in the band,"[13] and that having accurate, up-to-date information about incumbent use will, "facilitate coordination between operators…and will be a positive addition to existing regulations to ensure the optimal use of spectrum."[14] While some of the incumbent uses of the 12.7 GHz Band are different than those in the TV White Space, CBRS or 6 GHz bands, the technical challenges of establishing protection criteria and methodologies that can be implemented by automated dynamic spectrum management solutions are not insurmountable. In fact, history has shown that adapting existing sharing solutions to new bands and incumbent uses through industry-led discussions and cooperation can be accomplished readily.

[11] *See* Comments of Hispasat S.A., GN Docket No. 22-352 (filed Dec. 12, 2022); Comments of Society of Broadcast Engineers, GN Docket No. 22-352 (filed Dec. 12, 2022).
[12] *See* Vernita D. Harris, "A Spectrum Sharing Success Story: Citizens Broadband Radio Service," Electromagnetic Spectrum Enterprise Policy & Programs, Department of Defense, LinkedIn Blog (Nov. 14, 2022), available at https://www.linkedin.com/pulse/spectrum-sharing-success-story-citizens-broadband-radio-harris/.
[13] *See* Comments of Scripps Broadcasting Holdings LLC, GN Docket No. 22-352 (filed Dec. 12, 2022) at 3.
[14] *See* Comments of Kepler Communications Inc., GN Docket No. 22-352 (filed Dec. 12, 2022) at 4.

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The DSA encourages the Commission to pursue a shared licensing framework for the 12.7 GHz Band that leverages the extensive experience from the use of automated dynamic spectrum management solutions, like those used in the TV White Space, CBRS, and 6 GHz bands. Doing so will, "promote robust and efficient use of spectrum resources, minimize the potential for harmful interference" and, "maximize competition by a diverse set of operators."[15] The DSA and its members stand ready to assist the Commission in bringing the benefits of these sharing frameworks to this and other bands to support the ongoing needs of innovative use cases.

Respectfully submitted,

Martha SUAREZ
President
Dynamic Spectrum Alliance

January 10, 2023

[15] NOI at 31.